

Amendments to the Claims:

13. (Previously Amended) The method according to Claim 22, wherein the electrolyzing electrode is a cathode-side conductive polymer layer, the electrolytically-formed conductive polymer layer and the cathode-side conductive polymer layer being used as a cathode layer of the capacitor.

14. (Previously Amended) The method according to Claim 22, wherein the electrolyzing electrode comprises a cathode-side conductive polymer layer and a metal foil provided on the cathode-side conductive polymer layer, thereafter, the electrolytically-formed conductive polymer layer and the cathode-side conductive polymer layer being used as a cathode layer of the capacitor, and the metal foil being used as a cathode electric collector.

15. (Previously Amended) The method according to Claim 22, wherein the method, prior to the polymerizing step, comprises a step of partly forming a conductive layer on the surface of the dielectric layer.

16. (Previously Amended) The method of producing a laminated electrolytic capacitor, wherein the method further comprises steps of:

laminating a plurality of the electrolytic capacitors according to Claim 22 to obtain a laminate;
connecting a common anodic wiring electrode to the metal surface portion of each valve metal foil of the laminate; and,

connecting a common cathodic wiring electrode to each electrolytically-formed conductive polymer layer of the laminate.

17. (Original) The method of producing a laminated electrolytic capacitor, wherein the method comprises steps of:

laminating a plurality of the electrolytic capacitors according to Claim 13 to obtain a laminate;
connecting a common anodic wiring electrode to the metal surface portion of each valve metal foil of the laminate; and,

connecting a common cathodic wiring electrode to each cathode-side conductive polymer layer of the laminate.

18. (Original) The method of producing an electrolytic capacitor, wherein the method comprises steps of:

laminating a plurality of the electrolytic capacitors according to Claim 14 to obtain a laminate;

connecting a common anodic wiring electrode to the metal surface portion of each anode valve metal foil of the laminate; and,

connecting a common cathodic wiring electrode to each cathode electric collector of the laminate.

19. (Previously Amended) The method of producing an electrolytic capacitor according Claim 16, wherein the method further comprises a step of anodizing a part of the anode valve metal foil again, after the metal surface portion is connected to the anodic wiring electrode and before one of the electrolytically-formed conductive polymer layer, the cathode-side conductive polymer layer and the cathode electric collector is electrically connected to the cathodic wiring electrode.

20. (Previously Amended) The method of producing a electrolytic capacitor according to Claim 22, wherein the method further comprises a step of winding an electrolytic capacitor in the shape of a coil.

21. (Original) The method of producing an electrolytic capacitor according to Claim 20, wherein the method further comprises a step of anodizing a part of the anode valve metal foil again, after the electrolytic capacitor is wound in the shape of coil.

22. (Currently Amended) A method of producing an electrolytic capacitor comprising an anode layer formed of a valve metal foil having ~~straight~~ through holes formed therethrough and a

coarsened surface, a dielectric layer of an oxide film formed by anodizing a part of the surface of the metal foil, and a cathode layer, wherein the method comprises steps of:

forming the through holes through the valve metal foil by a mechanical method using punching or drilling, a chemical method using etching or a combination of these methods;

forming one electrolyzing electrode attached on one side surface of the valve metal foil; ~~and~~
immersing the valve metal foil in a conductive monomer solution where another electrolyzing electrode is disposed in the solution apart from the opposite side of the valve metal foil with respect to the one electrolyzing ~~electrode~~, electrode; and

polymerizing the monomer by electrolyzing the solution between the one electrolyzing electrode and said another electrolyzing electrode, to form an electrolytically-formed conductive polymer layer while going through the ~~straight~~ through holes in the thickness direction of, and covering the opposite side of, the valve metal foil, which layer, as the cathode layer, is attached to the surface of the oxide film on the valve metal foil.